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Please find below and/or attached an Office communication concerning this application or proceeding.

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Application No. Applicant(s) 10/677.675 STONE ET AL. Office Action Summary Examiner Art Unit SARI SAWAGED 2423 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS. WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). Status 1) Responsive to communication(s) filed on 18 July 2008. 2a) This action is FINAL. 2b) This action is non-final. 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s) 1-32 is/are pending in the application. 4a) Of the above claim(s) _____ is/are withdrawn from consideration. 5) Claim(s) _____ is/are allowed. 6) Claim(s) 1-32 is/are rejected. 7) Claim(s) _____ is/are objected to. 8) Claim(s) _____ are subject to restriction and/or election requirement. Application Papers 9) The specification is objected to by the Examiner. 10) The drawing(s) filed on is/are; a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abevance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.

Application/Control Number: 10/677,675 Page 2

Art Unit: 2423

DETAILED ACTION

Response to Arguments

 Applicant's arguments with respect to claims 1-32 have been considered but are moot in view of the new ground(s) of rejection.

2. Further, the applicant argues that "Altmann teaches away from communication of real time requests for un-rendered closed caption data sent from a monitor" since "Altman teaches that communication from a monitor to the source device "may not include...reverse communication channel." (see page 19 of the Remarks that the applicant submitted). The examiner respectfully disagrees. The applicant discloses that the EDID may include a modified monitor descriptor block which includes bits which when set indicate whether the sink device has requested closed caption data (see [0041] and [0045]). Altmann teaches that EDID 1.2 or EDID 1.3 are VESA standards and according to the VESA standards a source device may send a guery to a sink device when either the source device has been powered on or when the source device detects that a sink device has been physically connected to the source device where there had been no connection between the source device and the sink device, such as a hot plug detection. The sink device responds to the guery from the source device by sending its capabilities to the source device (EDID). The query and the response may be transmitted using display data channel (DDC) protocol and the inter-IC (I2C) bus signal timings, for example (see Altmann col. 6 II. 1-20 and II. 42-65). Since Altmann and the applicant disclose communication of the sink device capabilities to the source

Art Unit: 2423

device, the examiner finds that Altmann does not teach away from the applicant's invention and the examiner finds this argument submitted by the applicant to be not persuasive.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 24 and 25 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims recite "A monitor descriptor block" which is a data structure and does not fall under a statutory category. Appropriate action is required.

Claim Rejections - 35 USC § 103

- 5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this tilt, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- Claims 1, 3, 4, 7, 8, 9, 10, 15, 16, 17, 18, 24, 26, 27, 28, and 29 rejected under
 U.S.C. 103(a) as being unpatentable over Altmann (of record) in view of Hayes
 et al (hereinafter referred to as Hayes) (US Pat No. 6,938,101).

Claim 1:

Altman discloses "receiving a data signal in said source device, said data signal

including un-rendered closed caption data and video data" (see col. 3 lines 34-38, a set

top box (source device) receives data signals which include un-rendered closed caption

data from a head end);

"separating said video data from said un-rendered closed caption data" (see col. 3 II. 58

- col. 4 II. 11; wherein un-rendered closed caption data is either separated or

multiplexed to a signal sent to the sink device based on the sink device capabilities);

"determining closed caption processing capabilities of said display device" (see col. 3 ll.

58 - col. 4 II. 11; the source device inherently determines the sink device (display

device) capabilities because it either separates or multiplexes the un-rendered closed

caption data based on the closed capability of the sink device); and

"transmitting said un-rendered closed caption data to said display device if said display

device is configured to process un-rendered closed caption data" (see col. 3 $\,$ II. 58 - col.

4 II. 11; wherein the closed caption data is transmitted ("output auxiliary data") to the

display device if the display device is capable of processing the closed caption data

based on the information in the EDID of the display device).

Art Unit: 2423

Altmann doesn't disclose "determining if said display device has requested said unrendered closed caption data" or "transmitting- said un-rendered closed caption data to said display device only if said display device has requested said un-rendered closed caption data"

Hayes, an inventor from the same or a similar field, discloses "determining if said display device has requested said un-rendered closed caption data" and "transmitting-said un-rendered closed caption data to said display device only if said display device has requested said un-rendered closed caption data" (see col. 26 II. 24-48; Hayes discloses that the source device (STB) receives a closed caption request command from a display device (remote control with a display screen) and the source device sends the closed caption data only if the display device has requested the closed caption data, the act of determining whether the display device has requested unrendered closed caption data is inherent because closed caption data is only sent when it is requested).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of ""receiving a data signal in said source device, said data signal including un-rendered closed caption data and video data", "separating said video data from said un-rendered closed caption data", "determining closed caption processing capabilities of said display device", and "transmitting said un-rendered closed caption data to said display device if said display device is configured to process

Art Unit: 2423

un-rendered closed caption data" of Altmann with the method of "determining if said display device has requested said un-rendered closed caption data" and "transmitting-said un-rendered closed caption data to said display device only if said display device has requested said un-rendered closed caption data" of Hayes for the benefit of allowing users of a plurality of display devices connected to one source device to utilize the closed caption feature without affecting the program display on the other display devices. as disclosed by Hayes (see col. 26 ll. 1-7).

Claim 3:

Altmann discloses wherein said determining closed caption processing capabilities of said display device comprises:

communicating with said display device via said source device (see Altmann col. 6 II. 1-20 and II. 42-65; and Response to Arguments above);

accessing extended display identification data (EDID) corresponding to said display device (see col.6 line 7); and

determining closed caption processing capabilities of said display device based on said EDID (see col. 6 lines 5-13 and col. 3 ll. 34-38; wherein the source device determines the auxiliary data capabilities of the display device based on EDID information, wherein

Page 7

auxiliary data can include captions).

Claim 4:

Altmann discloses "wherein said communication with said display device occurs over a

digital visual interface (DVI)" (see col. 2 lines 64-66).

Claims 7 and 15:

Altmann discloses "a source device" (see col. 3 lines 36-38; disclosed as set top box, a

computer, or a DVD player, etc...);

and "a sink device communicatively coupled to said source device" (see fig. 1B fig. 4A,

col. 3 II. 61-65, col. 3 lines 16-23; wherein the sink device is a receiver or a display

device and is coupled to the source device by means of a DVI link);

"wherein said source device is configured to receive a data signal including un-rendered

closed caption data and video data" (Fig. 11, col. 3 lines 34-35; display device receives

auxiliary data signals the are comprised of closed caption data, and video data),

Art Unit: 2423

"separate said video data from said un-rendered closed caption data" (see col. 3 II. 58 – col. 4 II. 11; wherein un-rendered closed caption data is either separated or multiplexed to a signal sent to the sink device based on the sink device capabilities).

"determine closed caption processing capabilities of said sink device, and if said sink device is configured to process un-rendered closed caption data, transmit said un-rendered closed caption data to said sink device" (see col. 3 II. 58 – col. 4 II. 11; the source device inherently determines the sink device (display device) capabilities because it either separates or multiplexes the un-rendered closed caption data based on the closed capability of the sink device; wherein the closed caption data is transmitted ("output auxiliary data") to the display device if the display device is capable of processing the closed caption data based on the information in the EDID of the display device).

Altmann doesn't disclose " if said sink device requests said un rendered closed caption data, then transmit said un-rendered closed caption data to said sink device"

Hayes, an inventor from the same or a similar field, discloses " if said sink device requests said un rendered closed caption data, then transmit said un-rendered closed caption data to said sink device" (see col. 26 II. 24-48; Hayes discloses that the source device (STB) receives a closed caption request command from a display device (remote control with a display screen) and the source device sends the closed caption data only

if the display device has requested the closed caption data, the act of determining whether the display device has requested un-rendered closed caption data is inherent because closed caption data is only sent when it is requested).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system comprised of "a source device", "a sink device communicatively coupled to said source device", "wherein said source device is configured to receive a data signal including un-rendered closed caption data and video data", "separate said video data from said un-rendered closed caption data", "determine closed caption processing capabilities of said sink device, and if said sink device is configured to process un-rendered closed caption data, transmit said un-rendered closed caption data to said sink device" of Altmann with the system comprising determining " if said sink device requests said un rendered closed caption data, then transmit said un-rendered closed caption data to said sink device" of Hayes for the benefit of allowing users of a plurality of display devices connected to one source device to utilize the closed caption feature without affecting the program display on the other display devices, as disclosed by Hayes (see col. 26 ll. 1-7).

Claim 8 and 16:

Altmann discloses "wherein said source device comprises a set-top box" (see col. 3 lines 36-38).

Art Unit: 2423

Claim 9 and 17:

Altmann discloses "wherein said sink device comprises one of a digital television, a computer monitor, or a projector" (see col. 6 line 2).

Claim 10 and 18:

Altmann discloses "wherein said source device is communicatively coupled to said sink device via a digital visual interface" (see col. 2 lines 64-66).

Claim 24:

Altman discloses a monitor descriptor block comprising:

a first bit, wherein the setting of said first bit indicates a closed caption capability of an associated monitor (see Altmann col. 6 lines 6-19);

Altmann also discloses that the EDID may encode other feature bits to indicate the type of auxiliary features it supports (see col. 6 ll. 1-20).

Altmann however doesn't disclose

"a second bit, wherein the setting of said second bit indicates that said associated monitor requests that un-rendered closed captioning data be transmitted to said associated monitor; and"

"a third bit, wherein the setting of said third bit indicates that a source device has transmitted closed captioning data to said associated monitor."

Hayes discloses using flags (and inherently bits) to indicate a state or operational mode of a device. Hayes discloses if a request by a display device has been made for closed caption data then a flag is triggered (set) (see col. 26 II. 30-48),

Hayes also discloses using flags to indicate that a device is servicing a request (col. 21 II. 31-34)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the monitor descriptor block comprised of bits, one of which is "a first bit, wherein the setting of said first bit indicates a closed caption capability of an associated monitor" of Altmann with the teaching of setting bits to "indicate that said associated monitor requests that un-rendered closed captioning data be transmitted to said associated monitor", "indicates that a source device has transmitted closed captioning data to said associated monitor" of Hayes because it would have allowed for a single command (i.e., remote control button) to toggle features on and off as disclosed by Hayes (see col. 26 II. 42-45) thereby making easier for a user to operate the devices/features.

Page 12

Application/Control Number: 10/677,675

Art Unit: 2423

Claim 26:

Altmann discloses "receiving a data signal, said data signal including un-rendered

closed caption data" (see fig. 8 and col. 3 II. 34-36; fig. 8 shows "aux data sink" 450 in

the sink device for receiving auxiliary data from a source device, the auxiliary data being

comprised of un-rendered closed captions);

"separating said video data from said un-rendered closed caption data" (see col. 3 II. 58

- col. 4 II. 11; wherein un-rendered closed caption data is either separated or

multiplexed to a signal sent to the sink device based on the sink device capabilities).

"determining closed caption processing capabilities of said sink device" (see col. 3 II, 58

col. 4 II. 11; the source device inherently determines the sink device (display device)

capabilities because it either separates or multiplexes the un-rendered closed caption

data based on the closed capability of the sink device).

and "if said sink device is configured to process un-rendered closed caption data,

transmit said un-rendered closed caption data to said sink device" (see col. 3 line 58 to

col. 4 line 11; the closed caption data is transmitted ("output auxiliary data") to the

display device if the display device is capable of processing the closed caption data

based on the information in the EDID of the display device).

Art Unit: 2423

Altmann doesn't disclose "if said display device requests said un-rendered closed caption data, then transmit said un-rendered closed caption data to said display device"

Hayes, an inventor from the same or a similar field, discloses " if said display device requests said un rendered closed caption data, then transmit said un-rendered closed caption data to said sink device" (see col. 26 II. 24-48; Hayes discloses that the source device (STB) receives a closed caption request command from a display device (remote control with a display screen) and the source device sends the closed caption data only if the display device has requested the closed caption data, the act of determining whether the display device has requested un-rendered closed caption data is inherent because closed caption data is only sent when it is requested).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the processor readable medium including processor instruction that instruct a processor to perform the steps of "receiving a data signal, said data signal including un-rendered closed caption data", "separating said video data from said un-rendered closed caption data", "determining closed caption processing capabilities of said sink device", and "if said sink device is configured to process un-rendered closed caption data, transmit said un-rendered closed caption data to said sink device" of Altmann with the instructions of "if said display device requests said un-rendered closed caption data, then transmit said un-rendered closed caption data to said display

device" of Hayes for the benefit of allowing users of a plurality of display devices connected to one source device to utilize the closed caption feature without affecting the program display on the other display devices, as disclosed by Hayes (see col. 26 ll. 1-7).

Claim 27:

Hayes discloses processor instructions that instruct the processor to only transmit said un-rendered closed caption data to said display device upon request from said display device" (see col. 26 II. 24-48; Hayes discloses that the source device (STB, which inherently includes a processor) receives a closed caption request command from a display device (remote control with a display screen) and the source device sends the closed caption data only if the display device has requested the closed caption data, the act of determining whether the display device has requested un-rendered closed caption data is inherent because closed caption data is only sent when it is requested).

Claim 28:

Altmann discloses "communicating with said display device" (see col. 3 lines 58-63);

"accessing an extended display identification data (EDID) corresponding to said display device" (see col.6 line 7); and

Application/Control Number: 10/677,675 Page 15

Art Unit: 2423

"determining closed caption processing capabilities of said display device based on said

EDID" (see col. 6 lines 5-13).

Claim 29:

Altmann discloses "wherein said communication with said display device comprises communication via a digital visual interface (DVI)" (see col. 2 lines 64-66).

 Claims, 11, 19, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Altmann in view of Hayes in further view of Jon Iverson ("HDMI 0.9 Released", 30th June 2002, UltimateAVmag.com) (of record).

Claims 11, 19, and 30:

Altmann and Hayes disclose the limitations of claims 7, 15, and 28 as discussed previously.

Altmann further discloses that communication with the display device occur over a DVI (see col. 2 lines 64-66).

Neither Altmann nor Hayes disclose using HDMI.

Art Unit: 2423

However, Iverson discloses that HDMI functionality be implemented for communication between source devices and display devices (see Iverson paragraph 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Altmann and Hayes to use HDMI as disclosed by Iverson because it would have combined high definition video with multi channel audio in a single interface (see Iverson paragraph 5), eliminating the need for multiple connections to transmit video and multi-channel audio.

8. Claims 12, 13, 14, 20, 21, 22, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Altmann in view of Hayes in further view of Ozawa et al. (hereinafter referred to as Ozawa) (US 7,023,858) (of record).

Claim 12:

Altmann and Hayes disclose the system of claim 7 as discussed previously.

Further, Altmann that the source device can be a set top box (see col. 3 lines 36-38).

Neither Altmann nor Hayes disclose that the source device is configured to be communicatively coupled to a head end unit.

Ozawa, an inventor from the same or a similar field discloses that the source device is configured to be communicatively coupled to a head end unit (see Ozawa col. 3 lines

43-46). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Altmann and Ozawa because it would have enabled subscribers to purchase premium programming from the head-end.

Claim 13, 20:

Altmann discloses a system/source device for selectively passing closed caption data from a source device to a display device where the source device comprises:

A central processing unit is inherent to a source device (STB),

a digital visual interface input/output (see col. 2 lines 64-66),

an I2C bus communicatively coupling said central processing unit and said digital visual interface input/output (see col. 6 lines 54-55);

Altmann is silent as to whether the source device comprises a number of data storage units, or a processor communicatively coupled to the central processing unit and to the digital visual interface input/output.

Ozawa, an inventor from the same or a similar field discloses a source device which is comprised of a number of data storage units (see Ozawa col. 4 ll. 7); and

Application/Control Number: 10/677,675 Page 18

Art Unit: 2423

a (graphics) processor communicatively coupled to the central processing unit and to the video input/output (see Ozawa fig. 2 and col. 6 II. 10). It would have been obvious to one of ordinary skill in the art at the time to combine the inventions of Altmann and Ozawa because it would have enabled the optimization of rapid graphics/video processing as disclosed by Ozawa. It would have also allowed for the storage of media

Claim 14:

and/or auxiliary data in the source device.

Altmann discloses wherein said source device is configured to determine closed caption processing capabilities of said sink device through said digital visual interface input/output (see col. 3 II. 58 - col. 4 II. 11).

Claim 21:

Altmann discloses "wherein said source device is configured to determine closed captioning processing capabilities of a communicatively coupled device by accessing said coupled devices extended display identification data (EDID) (see col. 6 II. 5-13).

Claim 22:

Altmann discloses "wherein said EDID is communicated through said digital visual interface input/output (see col. 2 II. 64 to col. 3 II. 2 and col. 6 II.5-13)".

Claim 23:

Page 19

36-38).

9. Claims 25 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Altmann in view of Hayes in further view of Kessler et al. (hereinafter

referred to as Kessler) (US Pat No. 6,373,526).

Claim 25:

Altmann and Hayes disclose the monitor descriptor block of claim 24, as discussed

previously.

Altman discloses a monitor descriptor block comprising:

a first bit, wherein the setting of said first bit indicates a closed caption capability of an

associated monitor (see Altmann col. 6 lines 6-19);

Altmann also discloses that the EDID may encode other feature bits to indicate the type

of auxiliary features it supports (see col. 6 II. 1-20).

Neither Altmann nor Hayes disclose "different closed captioning format capability"

Art Unit: 2423

Kessler, an inventor from the same or a similar field, discloses a closed caption decoder that can operate on more than one closed caption standard (see col. 6 II. 40-45; EIA-

608 and EIA-708 closed captioning standards).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the monitor descriptor block of Altmann and Hayes with "different closed captioning format capability" of Kessler for the benefit of providing the device with ability to decode different closed caption formats that may be available with the programming that a user is viewing, as taught by Kessler.

Claim 32:

Altmann and Hayes disclose the method of claim 3 as discussed previously.

Neither Altmann nor Hayes disclose "determining a closed caption type supported by said display device"

Kessler, an inventor from the same or a similar field, discloses a closed caption decoder that can operate on more than one closed caption type (see col. 6 ll. 40-45; EIA-608 and EIA-708 closed captioning standards).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of determining closed caption processing capability of a

display device of Altmann and Hayes with "determining a closed caption type supported by said display device" of Kessler for the benefit of providing the device with ability to decode the best closed caption format that may be available with the programming that a user is viewing, as taught by Kessler.

Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over
 Altmann in view of Hayes in further view of Magendanz et al. (hereinafter referred to as Magendanz (US Pub. No. 2004/0080482).

Claim 31:

Altmann and Hayes disclose the method of claim 1 as discussed previously.

Altmann and Hayes disclose a source device connected to a display device, wherein the source device selectively is selectively transmitting un-rendered closed caption data only to the display device only if the display device is configured to process un-rendered closed caption data and if the display device has requested the un-rendered closed caption data.

Neither Altmann nor Hayes disclose that the source device is in communication with a plurality of display devices.

Art Unit: 2423

Magendanz, an inventor from the same or a similar field, discloses a source device (computer) in communication with a plurality of display devices (see Fig. 2 and [0035]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of selectively transmitting un-rendered closed caption data to a display device of Altmann and Hayes with the method of "source device is in communication with a plurality of said display devices" of Magendanz for the benefit of providing the user with the ability of connecting a plurality of display devices to a source device and having the same amount of desktop space (display size) of a large display while saving money (as disclosed by Magendanz, see [0003]).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SARI SAWAGED whose telephone number is (571)270-5085. The examiner can normally be reached on Mon-Thurs, 9:00AM-5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ANDREW KOENIG can be reached on (571) 272-7296. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2423

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sari Sawaged/ Examiner, Art Unit 2423

/Andrew Y Koenig/ Supervisory Patent Examiner, Art Unit 2423